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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,653	11/26/2003	Edmund A. Flexman	AD6924 US NA	8786
<div>23906      7590      08/08/2007</div> <div>E I DU PONT DE NEMOURS AND COMPANY</div> <div>LEGAL PATENT RECORDS CENTER</div> <div>BARLEY MILL PLAZA 25/1128</div> <div>4417 LANCASTER PIKE</div> <div>WILMINGTON, DE 19805</div>				
			EXAMINER	
			KRUER, KEVIN R	
			ART UNIT	PAPER NUMBER
			1773	
			MAIL DATE	DELIVERY MODE
			08/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/723,653	<b>Applicant(s)</b> FLEXMAN ET AL.	
	<b>Examiner</b> Kevin R. Krueer	<b>Art Unit</b> 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-16 is/are pending in the application.
- 4a) Of the above claim(s) 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-14, and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### ***DETAILED ACTION***

#### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 16, 2007 has been entered.

#### ***Election/Restrictions***

2. Claim 15 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on February 28, 2006.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-5, 7-14, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 contains an improper Markush group. Specifically, the group comprises "...and derivatives thereof, polyesters.....and thermoplastic polyurethanes."

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5, 8, and 9 are rejected under 35 USC 102(b) as being anticipated by Kosinski (US 5,237,008).

Kosinski teaches incorporating 0.2-3.0wt% of linear low-density polyethylene into polyoxymethylene composition (abstract). The polyoxymethylene may be branched or linear and will have a number average molecular weight of 10,000-100,000 (col 3, lines 45+). Said composition may be laminated to other layers (col 6, lines 1+). Herein, the LDPE is understood to read on the claimed olefin copolymer "non-acetal polymer" of claim 1. Said polymer is taught to have a melt viscosity that is lower the melt viscosity of the polyoxymethylene (see melt indexes of the examples). The thermal stabilizer is understood to read on the additional non-acetal component of claim 5 (col 6, lines 51+).

***Claim Rejections - 35 USC § 103***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claim 14 is rejected under 35 USC 103(a) as being unpatentable over Kosinski (US 5,237,008), as applied to claims 1-5, 8, and 9 above, and further in view of Shofner et al (US 3,813,212)

Kosinski is relied upon as above, but does not teach that the polyoxymethylene layer should be flame treated prior to lamination. However, Shofner teaches it is well known in the art to flame treat a thermoplastic polymer prior to lamination in order to improve adhesion (col 1, lines 8+). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to surface treat the polyoxymethylene layer taught in Kosinski. The motivation for doing so would have been to improve the interlayer adhesion of the laminate.

9. Claims 1, 5, 7, 9, and 16 are rejected under 35 USC 103(a) as being unpatentable over JP 2002309064A (herein referred to as Nakamura) in view of Kosinski (US 5,237,008).

Nakamura teaches a composition comprising 100pbw polyoxymethylene and 0-100pbw of a polycarbonate resin (abstract). The polycarbonate is taught to have a molecular weight of 10,00-40,000 (0023), which is understood to correlate to a lower melt viscosity than the inventive polyoxymethylene (see melt flow, 0030). Said composition has excellent impact resistance, dimensional stability, and mechanical properties (abstract).

Nakamura does not teach said layer may be laminated to other layers. However, Kosinski teaches it is known in the art to laminate polyoxymethylene layers to other layers. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to laminate the resin composition taught in Nakamura to another layer. The motivation for doing so would have been that Kosinski teaches it is known to laminate polyoxymethylene layers to other layers for use in desired arts.

Art Unit: 1773

Said combination is understood to read on claim 16 because claim 16 does not require the olefin copolymer member of the Markush group to be select. The claim merely requires that *if* olefin copolymers/terpolymers are selected from the Markush group of claim 1, then said copolymer is EVA or ethylene butyl acrylate carbon monoxide terpolymer.

10. Claims 1, 5, 7, 9-13, and 16 are rejected under 35 USC 103(a) as being unpatentable over JP02027615A (herein referred to as Nakagawa) in view of JP 2002309064A (herein referred to as Nakamura) for reasons of record.

Nakagawa teaches a laminate comprising 2 insulating layers. The first comprises a signal wire, a first grounding conductor, a second grounding conductor, and polyoxymethylene. The second comprises polyoxymethylene. The conductor is formed by lamination with an epoxy glue. Herein the conductor is understood to read on the discontinuous layer of claim 10, and the epoxy adhesive is herein understood to read on the epoxy of claims 12 and 13. The 2 insulating layers are understood to be continuous with one another.

Nakagawa does not teach the polyoxymethylene layer should comprise the claimed composition. However, Nakamura teaches a composition comprising 100pbw polyoxymethylene and 0-100pbw of a polycarbonate resin (abstract). The polycarbonate is taught to have a molecular weight of 10,00-40,000 (0023), which is understood to correlate to a lower melt viscosity than the inventive polyoxymethylene (see melt flow, 0030). Said composition has excellent impact resistance, dimensional stability, and mechanical properties (abstract). Thus, it would have been obvious to one

Art Unit: 1773

of ordinary skill in the art at the time the invention was made to utilize the resin taught in Nakamura in place of the polyoxymethylene taught in Nakagawa. The motivation for doing so would have been to improve the impact resistance, dimensional stability, and mechanical properties of said laminate.

Said combination is understood to read on claim 16 because claim 16 does not require the olefin copolymer member of the Markush group to be select. The claim merely requires that *if* olefin copolymers/terpolymers are selected from the Markush group of claim 1, then said copolymer is EVA or ethylene butyl acrylate carbon monoxide terpolymer.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues the invention relies upon a particular combination that results in having more adhesive character than the surface of what one of ordinary skill would expect to be an otherwise non-stick surface. Applicant argues said results are exemplified in the specification. Said arguments have been fully considered but are not persuasive. Applicant must fully explain how the results in the specification support the claim of "unexpected results."

With respect to Kosinski, Gawa, and Nakamura, Applicant argues the references fail to hint, suggest, or contain even a throw away statements that remotely points to the recited and disclosed technical solution of the present invention, i.e., a polyoxymethylene blend substrate that promotes adhesion between the substrate and

Art Unit: 1773

at least one layer adhered to it, thereby allowing application of a coating or a paint. The reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessarily that the prior art suggest the combination to achieve the same advantage or result discovered by applicant. The examiner notes that LLDPE is an olefin copolymer (col 6, lines 29+) and reads on the claimed non-acetal Markush group.

Applicant's arguments with respect to Kuduo are moot in view of the new grounds of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R. Kruer whose telephone number is 571-272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

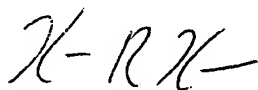
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Application/Control Number: 10/723,653

Page 8

Art Unit: 1773

A handwritten signature in black ink, appearing to read 'K-RK' with a stylized flourish at the end.

Kevin R. Kruer

Patent Examiner-Art Unit 1773